VOL. XIV. No. 5. ESTD., JAN. 1923 MAY 1936.

Health

A Journal Devoted to Healthful Living

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Published in
ENGLISH, TAMIL, TELUGU AND CANARESE.
Annual Subscription for any edition Rs. 1-8. Foreign Rs. 2. Post paid.
Editorial and Publishing Offices:—323, Thambu Chetty Street, George Town, Madras.

Editorial

Health and Longevity of Present-Day Indians

(Continued from p. 64 of Vol. XIV, No. 4 of "Health")

5. Early Marriage

We have described in our previous issue, four causes which are responsible for the low vitality and short-life of Indians at the present day, viz, (1) Insanitation; (2) Mal-nutrition or under-nutrition; (3) Poverty; and (4) Ignorance. Yet another cause, the fifth, is early marriage By early marriage, we mean the consummation of marriage at a comparatively young age. Age plays a very important part not only in the health and happiness of the union but also in the health and strength of the off-spring. In India, in pre-historic days, the marriageable age was fixed at 24, for a male, when he was said to have completed his studies or Brahmacharya Asrama and be fit to enter grahasthasrama or married life. To marry a boy, while in his teens and while still at school is to force him to bear an over-weight burden and especially in these days of economic distress and acute unemployment, to make two starve instead of one, unless it be that the parents or parents-in-law come to their succour. Scholastic life and marital life are incompatibles and a student should avoid during this period all sex-topics, sex-impulses and sex-companionship. Students should at the same time be taught something of sexual science in schools which is seldom done. So much so, they contract vicious habits of which onanism is the most common. This impairs their health, saps and undermines their strength and vitality and leads them to an early grave. Unless, therefore, a male is married at the age of 24, and unless in the meanwhile,

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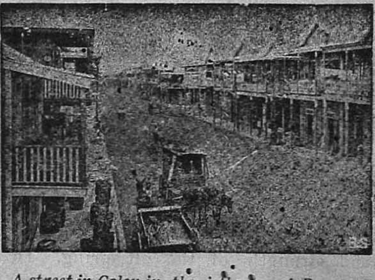
he gets sufficient instruction in sex matters and practises strict celibacy in thought, word and deed, there is no chance of his living a long and healthy life. As for the girl, the marriageable age should be fixed at 18. This is just the period when her body will have been fully developed and fit to bear the pangs and strains of maternity. If infantile and maternal mortality is any index to the health and well-being of a nation, then Indians must bow down their heads in shame, because it is this country that has the highest record of infantile and maternal mortality. A comparison of the statistics of India with those of the other civilized countries of the world will convince any one that our country is really heading for a disaster. The infantile mortality rate of New Zealand is 31, per 1000, of Australia 41, of Netherlands 46, United States of America 58, England and Wales 65, South Africa (White) 69, Canada 73, France 76, Germany 79, Scotland 86, Spain 111 and British India 169. As regards maternal mortality, Holland has the lowest record, 2.4 per 1000 births. Then comes France 2.5, Sweeden 2.6, Denmark 2.6, Norway 2.8, Italy 2.8, Japan 2.8, Finland 3.1, England and Wales 4.0, South Africa 4.9, Germany 5.1, Northern Ireland 5.2, Australia 5.5, Belgium 5.6, Scotland 6.6, United States of America 8.3, and India 24.5. These figures indicate the low vitality of the Indians and their supreme inability to resist the onslaught of diseases and while we admit there may be other causes as well, we cannot rule out the initial cause, viz., weak or diseased parentage resulting from early marriage.

6. Tropical Diseases

The sixth and the last, though by no means the least, cause is certain Tropical Diseases which carry away heavy tolls year after year and make equally large numbers of physical wrecks rendering them unfit to do any work and earn a living. Prominent among these diseases are small-pox, cholera and malaria. Small-pox and cholera have to some extent been overcome through compulsory protective measures, such as vaccination and inoculation, in cities and towns, but the danger is still lurking in village parts where these measures are not strictly enforced and where ignorance and superstition still reign supreme preventing effective prophylaxis. Education and propaganda are the only means to combat ignorance and superstition, in other words, to overcome the ravages of these diseases and these again are woefully lacking. Malaria is the most prevalent disease in India and is generally known as 'the captain of the Men of Death'. Of the 35 million deaths registered under fevers in 1933, malaria alone has exacted a toll of one million lives. "Malaria is probably responsible for about 20% of



A street in Colon in the isthmus of Panama, after it has been reclaimed and rendered free from malaria, by the Americans.

the total recorded deaths and many millions of the population experience periods of sickness, which cause grave

loss of earning power and much economic distress. Another one million deaths may be attributed indirectly to malaria. If we calculate the effects of malaria on labour efficiency by the economic loss in the widest sense, the figure obtained in money value will be staggering". But the disease is controllable and it has been controlled and many a large undertaking such as the Panama Canal would not have been successful but for the preventive measures that had been taken and large sums of money spent over them. In quinine there is an excellent remedy for malaria but this quinine is not within the reach of the poor. The stock of quinine held by the Government of India is too inadequate to meet the needs of the people and its cost is prohibitive. The charge is laid against the Government of India that they are making cent per cent profits over the sale of quinine. The Government of India ought not to be swayed by commercial instincts in matters of life and death and they should see that more quinine is produced and more quinine is distributed at cost price at least, if not free of cost, to the suffering millions and thus lend their helping hand in the battle that is now being waged against malaria.

We have said enough to convince our readers that the present-day Indians are a short-lived nation and in order that they may rise up to the level of the other civilized nations of the world, stupendous effort, a long purse and active co-operation between the Government and the people are necessary We hope these will be forthcoming in an abundant measure, in the future and that the coming generation at least will be blessed with good health, long life and prosperity.

Physical Fitness

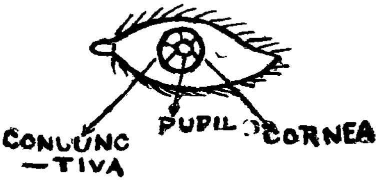
—By Khagendranath Chatterjee,—
M.S., Lt I M.S, (Retd.), Chinsura, Hooghly.

PART III—Eyes

I SHALL now deal with the organs of special senses, such as the eyes, the ears, the nose etc. The eyes are the foremost of these, as without them we cannot see this wonderful world, nor enjoy its beautiful sights, and our lives will be very miserable. So, it should be the primary duty of every man to take particular care of his eyes, so that his sight may last as long as he lives. Partial or complete blindness is a great physical defect. To preserve the eyes in a good condition, one should take nourishing foods, and never strain them by working in dim or dazzling lights Sufficient rest should also be given to the eyes, by regular hours of sleep every day. Cold baths are also beneficial to the eyes as they are to the general health. If these laws are faithfully followed, the sight may be maintained to a good old age On the other hand if these are violated, loss of sight takes place by the formation of cataract in comparative young age; this happens by the gradual change of the transparent lens within the eyeball, (through which light and image of objects pass) into

an opaque body The sight is also impaired by defective diet, *i.e.*, diet in which the vitamins are absent. Absence of vitamin A in the food of children produces blindness, to which we shall refer later on. In some parts of India, night-blindness prevails among the poor, and specially those who live on dry food only This can be prevented by taking green vegetables, particularly the peas, spinach, tomato, and foods rich in vitamin A, such as milk, cream, butter and eggs.

Ordinary people should have an outline knowledge of the structures of the eye, and some of its functions, so that they may be able to prevent the common diseases that attack the



eyes, and also to keep them in good condition. The eye consists mainly of the two lids, and a ball within them. The ball is divided into two portions, the white and opaque, known as the sclera (light cannot pass through it), which is covered with a thin layer of membrane, called the conjunctiva, and the dark and glistening portion in the centre, circular in outline, is called the cornea Unlike the sclera, the cornea is transparent, but looks dark, on account of the presence of a coloured membrane, just behind it called the Iris. The Iris is a circular membrane, consisting of muscle fibres and pigments and hangs like a curtain behind the cornea. The pigment material in the Iris varies with individuals. In the dark complexioned people it appears black or brown, while in the white skinned persons it becomes grey or blue There is an opening in the centre of the Iris, which is called the pupil. The pupil is the most important part of the eye, as it is the only passage through which light and all images pass into the interior of the eye, and helps our sight. Therefore, anything that will stand in the way of the pupil will obstruct the sight. Preservation of the cornea, therefore, which lies just over the pupil is essential for preservation of sight. It will be described later on, how ulcerative processes of the cornea interfere with the sight of man and may produce total blindness. Behind the Iris is a lens, which resembles a thick piece of transparent glass disc, and the light after entering through the pupil, passes through the lens to finally fall on a screen-like body called the Retina which is formed out of a nerve known as the optic nerve coming direct from the brain. All images and sense of light are thus carried to the brain by means of this nerve. This is in short the mechanism of sight.

We shall now discuss some of the commonest ailments that affect the eyes and in turn the sight. As the eyes are very weak and sensitive, they are prone to easy infection and injury and are liable to be inflamed quickly and this is brought about by trivial causes, as the falling of a dirt or rubbing them with an unclean hand or even the touch of an irritant. The eyes will immediately water and become red. The redness of the eyes is known as conjunctivitis and if there is pus along with the redness, it will be called purulent conjunctivitis. Ophthalmia is a general term to express all these conditions. The cornea is

equally liable to be injured and infected by trifling causes and very easily ulcerates. These corneal ulcers, if neglected, lead to scarring and the portions become white and opaque and if they form over the pupil, will obstruct passage of light and consequently blindness will follow. As blindness is a disaster to human life, and is caused by various means, some of the ordinary forms will be described below, excluding those which occur after injuries.

1. *Ophthalmia neonatorum.*—In the new born, a kind of purulent conjunctivitis affects both eyes, the infection of which is carried from maternal parts, and is due to venereal diseases of the mother, specially gonorrhœa. If not treated it may lead to blindness, by sloughing of the cornea.

2. *Syphilitic Keratitis.*—Children inheriting syphilis from their parents develop haziness in their cornea, the lustre of which is gone and it becomes hard and prevents the passage of light inside the eye. Untreated cases lead to blindness.

3. *Xerophthalmia.*—Children suffering from prolonged illness such as Kala-azar may suffer from this, and become blind. Also undernourished children, in whose diet there is deficiency of Vitamin A, suffer from it. A supply of food rich in this vitamin, such as milk, cream, eggs, green vegetables, especially tomato and spinach may prevent the disease.

4. *Glaucoma.*—This is a common complication of an infectious and nutritional disease of an epidemic nature, such as the Epidemic Dropsy and Beri-beri in which the sight is lost.

5. *Small-pox.*—Is one of the commonest causes of blindness in India, caused by ulceration of the cornea.

Vaccination prevents small-pox and thus prevents also blindness.

6. *Cataract.*—It has been stated, that turbidity of the lens leads to the formation of cataract, causing gradual loss of sight. This is a natural change of old age, but may occur in early life, after grave illnesses, and in a debilitated state of health.

7. *Optic atrophy.*—This occurs by attacking the nerve of the eye, which carries all impulses of light to the brain, and is caused by various diseases of which Syphilis is one. Excess of alcohol is another. Sudden loss of sight, without any external change in the eye, in a middle aged man, is mainly due to venereal disease. It is a blunder to hide and neglect venereal diseases, and one should undergo active scientific treatment as soon as one is infected. Neglect may bring disaster.

(To be continued.)

The Health of the Community

By Dr. G. Raman Pillai, M.B. Ch.B.,
Trivandrum.

The health of the community can only be what the citizens make it. Broadly speaking, the individual cannot be healthier than his neighbours; and the community reflects the amount of attention that the citizen devotes to the common welfare The strength of a building is the strength of its wall, that is the strength of every brick in it If a dishonest contractor inserts a few defective bricks by stealth into a wall, by so much is the wall of the building weakened in stability. A few bad bricks, therefore, can endanger the existence of the whole structure. Similarly, a number of cases of contagious or infectious disease in a town can endanger the health of the town. A single match can fire a whole forest, a single case of cholera can wipe out a population.

It is therefore in the interests of every one of us and of our children, that while we look after our own healths, we look after the healths of our neighbours also—for our sake as well as theirs. It is our duty to see that no case of cholera or plague or pox is permitted to be brought among us, and also to see that they are removed from our midst when they arise. It is no use our protesting against a neighbour who conceals a case of plague if we are also guilty of the offence of concealing a dangerous infection in our houses. Do unto others as you would be done by. Likewise, be prepared to take from others as you have given them! When we permit our children to dirty the frontage of our neighbours' houses, we are asking for a retaliation; and we find our door-steps treated similarly, if not 'with interest'! The result is that this spirit of 'emulation' and rivalry ends in a chronic state of unhealthiness of our streets and houses —a state to which we grow 'naturalised' until we are told that the high death-rates of the town are caused by such insanitary practices! When we go to the cinema with a bad 'sneezing and coughing' cold, we simply scatter the infection among those around us; and, the next day, those friends who enjoyed the evening with us are laid up with the infection. Had we been considerate to our fellow-beings, we would not have exposed them to our infection. In many cases, we were not told, either at school or elsewhere, that 'colds' are infectious. For others' sake, therefore, we have sometimes to forego a few comforts or conveniences. We can, for example, help to check the spread of small-pox by keeping back for a few days longer, from school, our children who are only partially cured from the disease and therefore liable to infect others We reap what (infections) others sow, because we had sown what others unfortunately are reaping. We can all avoid these 'harvests', if we decide never more to sow the seeds of disease.

In short, we must confess that we deserve what we get! Let us see if we cannot try and deserve better. Let us clearly understand that it is ultimately for our personal safety that we

seek or are driven to seek the safety of the rest our community How to realise this connection between our healths and the health of the community? This is the task of our hard-worked health officers, whom we almost look upon as unmitigated nuisances, that 'harass' us with unwelcome and unremitting attentions and even criminal proceedings for acts that we have never been taught to look upon as a crime against society. A community that makes laws for the conduct of its citizens of to-day, is expected to instruct the rising citizens of to-morrow on what would constitute a breach of the laws of health A previous knowledge of the effects of one's behaviour on one's health would secure a more intelligent and a more willing obedience to the health rules than the coercion decreed against an ignorant and sensitive people. When the reign of the brich-rod has been happily succeeded by the rule of reason and voluntary action, we may expect our youths to develop a spirit of altruism by the training and direction imparted in their schools. Impart this knowledge, therefore, to the school children in the compulsory primary schools. The modes of spread of diseases, and the means of avoiding them could be easily taught in the schools; and a habit of healthful descipline cultivated that would prevent the growth or spread of those diseases! In addition, it is of equal importance that the foundation be laid in the minds of the young that we cannot individually be healthier than our neighbours or our community, in the long run. In a word, we must see to it that our next generation is equipped to think and act in terms of the community and its welfare is synonymous with their own individual welfare. The chief sign of civilization is the realization of the sense of responsibility for the communal welfare. The majority of us in India die off before we attain 25 years of age. In America the majority of people live up to about 68 years of age. A nation of juveniles and adolescents cannot make much headway in this world! Some 150 years ago the average length of life in America was only 18 years, says Dr. C E. Turner of America, but the consciousness of civic responsibility carefully developed in the young has brought about the much desired result. Dr. Turner thinks it possible to raise the average length of life in India from 24 to 35 years in a generation by careful planning for health. Let us do what we can to help the growth of the civic sense and responsibility that alone can solve our health problems for us. Let every boy and girl among us receive the primary education of how to grow up a citizen endowed with the knowledge and responsibility that raises the community to a higher plane of health of body and of mind.

If I were a physician, I would wheel my patients to the window, and let Nature feel their pulses.—THOREAU.

The Importance of Preventing Decay in Children's Teeth

— By Dr. S. K. Gupta, —
—Surgeon Dentist, Durga Charan Road,—
Ambala Cantt

It is my hope that the message I bring to-day may be of some help to you and your children. I am to tell you of the importance of preventing decay in children's teeth. Not to tell you what to do for teeth that have already decayed but to tell you how to a very large extent you may prevent decay from starting.

Why should it be important to prevent decay? You have seen many children with decayed baby (Milk) teeth and yet these children have lived and have grown up to be men and women. Then why should we now give so much attention to the prevention of decay in teeth?

This is the question I am asked to answer, and I shall make every effort to give you some commonsense reasons why decay in teeth should be prevented, and how to prevent it.

There is no need to tell you that it is important to give your children good wholesome food if you wish them to grow strong and healthy Not only is good nourishing food necessary, but it must also be clean and cooked in clean utensils. You keep your pots and pans clean and you serve the food to your children on clean plates. But please think for a moment This clean and wholesome food, so carefully prepared by you to help to keep your child strong and well, must pass through the mouth before it goes into the stomach to be digested and assimilated and taken into the blood to build up the growing body.

You must understand that no matter where we may find decayed bone, be it in the mouth, in the foot or anywhere in the body, bacteria are always present. If there were no bacteria we would not have decay. This is the first point to be rememberd, in decayed teeth bacteria are always present.

One of my friends—a student of the local college at Lahore—had pain in one foot and could not stand it. He was taken to the Mew Hospital, Lahore. The physician and dentist were reading the chart at his bed side and the dentist asked the physician how the student's teeth were. The student heard this and thought a mistake was being made and so exclaimed, "It's not my tooth, it's my foot". But it *was* one of his teeth, and when this tooth was taken care of, the student went back alright in forty-eight hours.

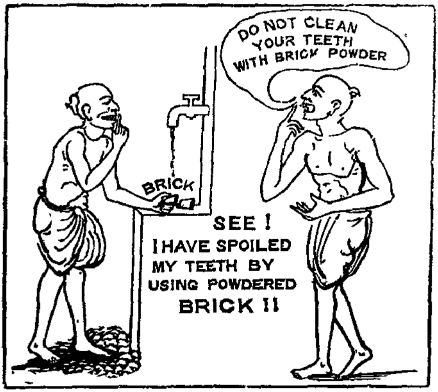
The blood had carried the bacteria from the tooth to the foot.

Now let us think about the food, that clean wholesome food you have so carefully prepared for your child. When we find decayed teeth we know bacteria are present. Should I take some of these bacteria out of one of the decayed teeth, put them on a slide and let you see them through a Microscope, and then ask you to feed them to your child, you would be horrified. But cannot you see that when your child has any decay in his teeth he is

mixing these bacteria with his food? Now please realise that in the smallest decay in any tooth there are millions, yes, even billions of these bacteria. When we know that many different illnesses such as Rheumatism, Gout, Neuritis, certain forms of Blood-poisoning, and chronic indigestion and even insanity are caused by these bacteria, is it not common sense to prevent decay by every known means?

Where and How Decay Starts

To tell you how decay of the teeth can to a very large extent be prevented, requires my briefly telling you how the teeth are formed. A tooth starts to grow from four points. As these parts grow in size they meet and join and there is left a little crack or opening in the enamel — the uppermost shining layer of the tooth—Dentists call these little cracks or openings, pits and fissures When the tooth first comes through the gums there is no decay. But very soon small particles of food and bacteria get into these tiny holes Fermentation then takes place and acids—most probably Lactic Acid—are formed. These acids break down the tooth and we have decay. But you cannot see this decay because it starts at the bottom of these little openings and not at the surface where you could see it. The decay grows larger and larger under the enamel until the top breaks down and it is too late when you see the decay, and is too late to prevent it These little holes, called pits and fissures (remember the names so that you can talk to your dentist about them), are so small that one single bristle of a tooth-brush or 'dantan' cannot get into them, and so you cannot clean them out. It is well known that that part of the tooth which is kept clean and which has no little holes, cannot and does not decay. From carefully compiled records of 30,000 persons showing where decay starts, we find that over 90 per cent of all decay starts where these pits and fissures are found.



Teeth must not be cleaned with powdered brick and the like lest they should decay

When the dental profession of America, of Canada and the international dental profession of the world learned that in one of these little holes there is room for several billions of bacteria, and that no one could clean them out by brushing, they officially adopted the following resolution :—

"That in the aim to attain prevention of systemic and dental disease, no dental defect is too slight to receive definite attention".

"Particular care and attention should be given to pits and fissures,

whether decay is or is not present".

Never before in the history of dentistry has the dental profession ever taken official action telling the dentist what they should do, but because we have learned how important is the conditon of the mouth to the general health of the body, and because we now know how easy and how painless it is to close these little holes before decay can start, our profession has officially adopted these resolutions. You will notice that this resolution states for the prevention of "systemic disease" as well as dental disease Systemic diseases, you know, are illnesses, and many different kinds of illnesses are associated with the bacteria found in the decayed teeth When these little holes are closed by filling them with dental cement, silver or gold, we prevent decay starting inside the tooth With good wholesome food, with plenty of fruits and milk, your child has a far better chance to grow big and strong and well. There is a lot of good, practical commonsense in this suggestion, but it is up to the fathers and mothers to see that their children have first grade of Milk Teeth and not to wait for serious troubles of decayed teeth, to let them know the importance of keeping clean and well sterilised mouths of the children from the very childhood.

A friend of mine, a trained nurse, told me the following story.

When she was a little girl her mother wished to impress on her how important it was to clean her teeth. Her mother took her to the river where there were many crocodiles with their big mouths wide open and little birds busy picking away the food from between the teeth.

So you see it is Nature's way to preserve the teeth by keeping them clean. "Clean as a hound's tooth" is a very old saying.

The other day I saw a woman with beautiful teeth. One of them had a little tiny hole You could not see any decay. An X-ray picture was taken and there under the enamel was a big decayed cavity If this little hole had been filled up when this young woman was a child, this tooth would not have been lost.

The Temporary (Milk) Teeth

It is just as important, if not more to take care of the baby's teeth. A child with his first set of teeth is still young and tender. The child is not fully grown and his strength and resistance are not strong. This is the time when he needs good, clean food. This food should not be made dirty by being put into a dirty, diseased and carious mouth. Therefore it is very important to see that none of the baby teeth decay. These baby teeth also have pits and fissures, and you should ask your dentist to examine and take care of them Talk with the dentist about these pits and fissures. Do not neglect, thinking them, to be only little holes. Your dentist will then realise your true interest and your understanding of the importance of the mouth health of your children.

Between five and six years of age your child will have four important teeth come into the mouth. They come in at the back of the Milk Teeth and are the first molars, or what are commonly called sixth-year molars. These are permanent teeth, and if properly taken care of should last a life-time. More of these sixth-year molars are lost than any of the other

teeth. Why? Because parents think they belong to the baby or 'First Set of teeth, and neglect them. These teeth do not need to be lost. The dentist will carefully examine these teeth, and when he finds a little pit or fissure he will at once fill it with any filling material—Dental Cement, Silver or Gold—before the bacteria can get in. In this way decay will be prevented from starting at this place. It is also interesting to learn that *when one of the second teeth is lost* the chances of decay in the other teeth are greatly increased. In other words, there are more chances for decay to start when one tooth is lost than when no tooth is lost. This should show the importance of taking preventive measures so that decay cannot start and no tooth will be lost.

To show how important the teeth are, let me read to you something that Dr. Hooton of Harward University, who is Professor of Anthropology, wrote in the 'Scientific Monthly Journal'. I think it will interest you.

> "You must know the history of the teeth in order to appreciate them, and because this history epitomises human evolution. The control of future human evolution is now in man's own hands—or perhaps rather in his teeth".

In conclusion, I hope what I have just told you may be of some help to you and your children. And if you care to write to me I will be very much pleased to advise you about any kind of dental service.

Night-Blindness and Vitamin Deficiency

—By Dr. L. R. Fernandez,—

Physician & Eye Surgeon, Trichinopoly.

It is a thousand pities that owing to the impoverished state of India, night-blindness seems to be on the increase year after year. From the recent statistics taken on eye diseases it has been computed that nearly 3671200 patients are suffering from this trouble.

Night-Blindness is one of those eye conditions in which patients find objects rather dim after sunset. They may be able to see perfectly well in broad day light. But after dusk, their light sense is reduced and there is difficulty in their vision. Sometimes they stumble over objects at night. This defect attacks chiefly children below 12 years of age, though adults are not exempt from it.

The chief cause of night-blindness is vitamin deficiency in the diet though there may be other causes in operation such as malnutrition consequent upon some prolonged fever as malaria, Kalaazar, typhoid etc., or chronic dysentery or diarrhoea. The chief vitamins that are believed to be deficient are vitamins A, B, D. I wish to draw the attention of parents, teachers, boarding masters and convent sisters who are in charge of children, to certain signs and symptoms which they are likely to notice in their wards long before the doctor sees such children. The conjunctiva of the affected boy or girl presents a smoky dull appearance with triangular or irregularly white patches over it; it is

also dry and lustreless. It is such a child that very often complains of difficulty in vision after sundown. He may be quite intelligent, but owing to his handicap of studying at night, he may be dubbed as a dull and backward boy—very unfortunate indeed !

Treatment must be directed towards improving the general condition of the patient and supplying the vitamins that are deficient in the diet. Cod-liver oil in the shape of Halibut liver oil or Adexolin does admirably well. For those who cannot afford to buy such costly preparations, simple pure Norwegian Cod-liver oil may be given. In my patients I have seen very good results by advising them to take fried liver of the goat four times a week. Fruits like oranges and grapes, and nuts as cashew-nuts and almonds also do much good. Would to God that the out-patient department of our Government and Municipal dispensaries supply at least two oranges daily to those poor eye patients who can't afford to buy them every day. Here it must be noted that the majority of sufferers are from the poorer classes. No amount of treatment by drugs can do any tangible good unless and until the vitamins deficient in the body are adequately supplied. Plenty of cow's milk also is beneficial. As the vitamins in the milk are destroyed by too much boiling, care must be taken not to over-boil the milk. By way of local application, a drop or two of atropinated castor oil into both the eyes at bed time helps to cool and lubricate the eyes, to give rest to the iris, and remove the lustreless xerotic appearance of the conjunctiva. The writer has come across a good percentage of such patients suffering from myopia. Some of them are cases of simple myopia and others myopic astigmatism which are again believed to be caused by vitamin deficiency. While correcting the error of refraction it is advisable to administer the above-mentioned articles of diet which abound in vitamins.

SLEEP

Blessings light on him that first invented sleep! It covers a man all over, thoughts and all, like a cloak; it is meat for the hungry, drink for the thirsty, heat for the cold, cold for the hot. It is the current coin that purchases all the pleasures of the world cheap, and the balance that sets the king and the shepherd, the fool and the wise man even.—CERVANTES.

—GOOD HEALTH (U. S. A.)

Health Alphabets

A. K. Bhattacharya, M.B., (Cal.),
Moradabad.

A—Alcohol and tobacco are the twin devils playing havoc on the Society.

B—Beware of flies, they contaminate your food and drink and spread diseases.

C—Clean teeth never decay.

D—Diseases are mostly due to violating the laws of health.

E—Early to bed and early to rise, makes a man healthy, wealthy and wise.

F—Fifty is a good number to remember, your liver weighs fifty ounces, your brain weighs fifty ounces, the total quantity of urine you pass in 24 hours is fifty ounces, your urinary bladder can hold upto 50 ounces, your rectum can contain upto 50 ounces.

G—Good food, physical exercise, God's air and Sun's rays are as essential for sound health as contentment.

H—Health is wealth.

I—Infectious diseases are spread by finger, flies, food, fomites, air and water.

J—Just avoid straining your eyes by reading small types in insufficient or glaring light, in a stooping posture or by frequent cinema going or reading in moving vehicles and your vision will not suffer any time.

K—Keep yourself clean, be temperate, have fresh air and sunshine and you will keep the doctor away.

L—Lucky, are those who enjoy sound sleep at night; sound sleep is nature's best refresher.

M—*Mens Sana in Corpore Sano.* (A sound mind in a sound body is God's choicest blessing.)

N—Nature wants the baby to be breast-fed; artificial feeding, except when unavoidable, is injurious both to the baby and the mother.

O—Over-Crowding, Poverty, Under-Nutrition, Illiteracy, Purdah System and Child Marriage are the causes why Tuberculosis is taking a heavy toll in India.

P—Prevention is better than Cure.

Q—Quality of food is even more important than quantity. Include in your diet liberal quantities of dairy produce, fresh vegetables and fruits.

R—Regular physical exercise is essential not only to become strong but also to remain fit.

S—Stomach has no teeth, so that chew your food well while in the mouth.

T—Tongue is the index of stomach and bowels. Flabby coated tongue, indented with teeth, indicates bad digestion.

U—Under-nutrition of the parents, poverty, illiteracy and childmarriage account for the death of one infant every two minutes in India.

V—Vaccination is the surest preventive against Small-pox.

W—While you are angry or in any emotion your digestive juices stop secreting and movements of the stomach and bowels become sluggish so that don't be in any emotion before, during and after meals; otherwise you will have a bad digestion.

Y—You must lead a well regulated life in order to live long.

X, Z—Xerophthalmia, Zerosis, Keratomalacia, Night-Blindness etc., are diseases of the eye due to deficiency of 'A' Vitamin in the food.

FOOD

—By R. Rajagopalan, B.A.,—
Ootacamund.

GREATER men have dealt with this subject and authoritave works, founded on the results of scientific researches are available in the market. My idea, in coming forward with this article, is to place before the ordinary man the primary principles of food.

The most common craving of man and beast is *hunger*. World's peace is based on the problem of food. If two nations are at war against each other, the ultimate object of one is to provide food for its starving millions by attacking the other, which has a surplus food supply. An average man's life is one of earning his daily bread. In the quest of food so many problems arise of which health is one.

Food is the energy supplier. It replenishes the energy spent in work besides replacing the wasted tissues and supplying rich blood. Food possesses a store of subtle energy which is drawn in even at the first bite. A man dying of hunger regains his vigour at the bite of a morsel of food! Wherefrom does he get the energy even before the food undergoes all the processes of digestion?

Food is also responsible for a man's ill-health; and food taken in intelligently is best medicine. All diseases—surgical maladies excepted—can be classified into two main heads, those arising from (1) over feeding and (2) under feeding. Food prepares the field for outside infection in cases of contagious diseases.

Man is weakminded. He is surrounded more by the attractive and evil food than by good food. Modern civilisation has placed him in artificial surroundings and the natural articles of diet are out of his sight. He has been trained to eat various appetising dishes and ah! What rapid strides modern cookery has taken at present providing an endless list of dishes and creating new tastes! Man's susceptibility to fall a prey to these tasty foods may perhaps be traced to Mother Eve's craving for the forbidden fruit.

Of late, health-consciousness has crept in with the result that all our articles of food are being investigated by great scientists. The modern insight into the vitamin theory eggs on people to swallow vitamins in condensed forms and in gelatine capsules! Nutritious foods are being singled out and packed full into the stomach. But the efficient handling of the foodstuffs alone will do good to the consumer and not the blind following of the vitamin table. A particular vitamin may do good in cases of persons suffering from deficiency in that particular vitamin. For general health it is foolish to follow such a dietary.

Our forefathers knew nothing of these vitamins and yet they were better-looking and stronger than most of us. Even at the present day, labourers with their meagre dietary are stronger, healthier and more immune to diseases. A rich man goes through a heavy programme of meal throughout the day and is either sickly or obese (which is thousand times worse than disease). What nourishment a man requires is present in all foods—whether rich or

meagre. The *Secret of Health lies in good digestion. Digestion does not mean the progress of food from the mouth to the rectum.* Good digestion constitutes assimilation of food and elimination of waste matter. The body derives all the benefits of the food only by good digestion.

How to get good digestion? The first essential is hunger. Hunger is quite different from craving, which is otherwise called 'false hunger'. The particular meal hour, the sight of a hotel, smell of appetising food may produce this craving. But real hunger is one which is produced when the stomach is completely empty, which state can be detected by a smell-less belching. Food taken in when there is undigested food in the stomach acts like poison. The good value of food is lost when it mixes with the remnants of a past meal, just like a drop of butter-milk in a cup of milk turning the whole sour.

It is needless to describe the action of the digestive organs when food passes into the mouth, as greater men have dealt with it. Suffice it to say, that fresh food over partly digested food weakens the gastric functions of the stomach. Indigestion is the result, and the body loses the benefit of a good rich meal.

Next essential for good digestion is proper elimination. Accumulation of waste matter is the source of many diseases. To aid elimination, roughage in one's dietary is needed. Tinned foods, dishes which cater to the needs of fashion and polished articles of diet, all stand in the way of proper elimination. Diet should include vegetables, and fruits to provide roughage. Those who cannot afford to go in for costly vegetables and fruits can easily get this in unpolished rice, wheat and cereals. A spoonful of bran in each meal helps elimination. One should devote special attention to proper evacuation of the bowels. Even a meagre diet will give the maximum benefit if one makes it a point not to eat if he fails to expel the waste products of a previous meal.

Eating for health is different from eating for pleasure. The former generally does not satisfy the sense of palate. Food in raw form is certainly the best, but having been accustomed to delicacies for the past so many centuries, it is not proper, or easily possible, to make a sudden jump to *Nature*. To avoid bad consequences, one must gradually change his diet. Fried foods, overboiled and highly seasoned foods, acid forming foods must be avoided. The daily menu should include a salad of fresh vegetables, dishes of more vegetables and less of rice. High protein in food is not beneficial to health though protein is an essential factor for the growth of muscular tissues. It has been proved that it causes acid condition of the body with consequent rheumatic, paralytic and such troubles. Acid food is the cause of the premature decay of tissues, bone and teeth. Alkaline condition ensures better health and this is achieved by the consumption of more vegetables and fruits.

The chief cause of defective assimilation is cross-feeding. It spoils good digestion by interrupting the flow of gastric juices in the stomach and cause of strain on the secreting glands. Another cause is an incompatible combination of food stuffs. Mono-diet is the best diet. It prevents neutralisation between the acid and

alkaline elements and so the absorption takes place with good results. Mono-diet, so to say, is a medicine in certain diseased conditions Anæmic condition can be cured easily by a mono-diet of fruits which contain iron. Acid state of the body can be rectified by a diet of citrus fluits like lime, lemon, oranges etc. This principle forms the keynote of the *Nature Cure* treatment. According to Sir Robert Mc Carrison, the great food specialist, "*Food is the Best Medicine*"

Topics of Interest from Periodicals

Scientific Accuracy of the Mosaic Law in the Sphere of Natural Birth Control.—The Law of separation of Moses seems to devetail remarkably well with the calculations of Ogino, Knaus and other proponents of the modern method of natural birth control.

The Mosaic law runs as follows:

"But if she be cleansed of her issue, then she shall number to herself seven days, and after that she shall be clean—Leviticus xv. 28

Assuming the menstrual period to be five days, the added seven dates make twelve. To be sure, all this applies to a 28-day cycle, for Moses could not take account of exceptions.

This command to abstain from intercourse until the twelfth day of the menstrual cycle takes us well toward the middle of the fertile period now advertised by the new school of natural birth control; in fact, it takes us to the first day of ovulation as Ogina and Knaus calculate it. So the law of Moses hooks up definitely with the "new teaching".

Of course, Moses sought a high birth rate. Mohammad, lacking the scientific genius and research spirit of Moses, in the biologic sphere was obliged to rely primarily upon polygamous propagation for results. In the one case we have a high degree of technical finesse, with no disruptive social effects; in the other we have a crude system in which success was attained at great social cost, that is to say, wreckage of the institution of monogamous marriage. Thus Moses was incomparably the greater lawgiver, while science did not come into the ken of Mohammad at all.

It is possible that Moses may have seen breeding experiments conducted by others upon Egyptian slave girls, thus arriving at his remarkable conclusions. Such human experimental material was then available in quantity.—*Medical Times*.

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It Takes Two to Make Marriage Happy.—The idea keeps cropping up that the best solution for unhappy marriages and the ravages of divorce, is trial marriage, sometimes called companionate marriage. A doubtful couple in love, with or without the law according to the government under which they live, go the limit in conjugal union by mutual consent only;

and then, if the trial proves unsatisfactory, they separate in the same easy way, and each tries again with another prospect. Much like the animals. In fact, the scheme originates with the theory of evolution, which says we evolved from animals. Why not revert to ancestral way to dissolve our marital difficulties?

Easily planned, but not so easily done. Marriage is founded on a fundamental law, which cannot be broken with impunity. Above the law of the state is the dictum of the Creator of man and woman, which dictum Adam quoted at the first marriage ceremony, in the words, "Therefore shall a man leave his father and his mother, and shall cleave unto his wife: and they two shall be one flesh." Any pair that breaks this command does so at the cost of true and lasting happiness.

But even if there were no moral or religious obligation which the participants would acknowledge, trial marriage is a vexation, to put it mildly. To mention just one woe: What if one of the two wants to separate, and the other doesn't? This is very often the case in troubled married life. May be the husband desires freedom, but the wife still loves him and cannot get the consent of her heart to give him up. Too often he goes, but there is no *mutual* consent about it. Spirits are irreparably broken, lives are hopelessly wrecked, and children are dismally handicapped. There is no cure but God's cure for wedded discord.—*The O. W. and Herald of Health.*

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Vaccination Without a Scar.—Heretofore, a scar has been regarded as an unavoidable result of a vaccination. But Dr. Thomas M. Rivers, of the Rockefeller Institute for Medical Research, has devised a method which leaves no permanent mark. Only the skin is pierced. Tried on twenty-nine infants and children, with primary takes in every one, no open sores or scars resulted. These intradermal inoculations are also effective in testing the immunity of persons already successfully vaccinated with calf lymph. The reactions are small, red, itching papules, being less uncomfortable and painful than the ordinary revaccination.

The final problem of how to deliver the virus without refrigeration was solved by mixing with gum acacia. It was then frozen, dried and sealed in a vacuum. Thus it can be shipped without deterioration.—(*Journal of Experimental Medicine*).—*Thro' Good Health.* (*U. S. A.*)

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Play Centres.—There are now 42 play centres in London, where hundreds of the poorest boys, girls and babies of three can have a good time when the school day is done. Besides being fun for the children, the play centres are a boon to mothers, giving them peace of mind, and saving many of the children from street accidents. Voluntary workers look after these centres, and some game masters are employed. The Queen has lately sent a lovely parcel of toys to each of the centres. Daily attendance at each of the 42 centres ranges from 250 to 500.—*The Treasure Chest.*

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Vitamin in Beer.— The vitamin content of beer is a subject of topical interest, party because a content of vitamins has become an asset to any food material from the point of view of advertisement. English workers showed ten years ago that beer contained a

certain amount of vitamin B complex, but very little of vitamins A, C and D. Donovan and Hank have made quantitative measurements of the vitamin B content of five samples of American beer. They mesured the content of vitamins B_1 and B_2 separately by means of feeding experiments on rats. They found a small content of both these vitamins, but their chief conclusion is "at rats, and probably also for humans".—*From British Medical Journal.*

* * *

Recreation.—is intended to the mind, as whetting is to the scythe, to sharpen the edge of it, which otherwise, would grow dull and blunt. He, therefore, that spends his whole time in recreation, is ever whetting, never mowing; his grass may grow and his steed starve: as, contrarily, he that always toils and never recreates, is ever mowing, never whetting; labouring much to little purpose. As good no scythe as no edge. Then only doth the work go forward, when the scythe is so reasonably and moderately whetted, that it may cut. and so cut that it may have the help of sharpening.—*Bishop Hall. Thro' Indian Dental Review.*

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Value of Indian Foodstuffs.—Indian foodstuffs have received considerable attention in the catechism of Biochemical and Allied Research in India in 1934 published by the Biological chemists of Bangalore. If is stated that the nutritive value of pure ghee is the same as that of original butter. The growth-promoting factor of curd is found to be very nearly the same as that of an equivalent quantity of milk. For all practical purposes the nutritive value of milk is superior to that of butter or ghee. Milk possesses a pronounced stimulating effect on growth and hence greater consumption of milk should be advocated. Considered purely as fat, mustard oil is just as nutritive as any other fat. provided sufficient vitamin A is supplied through other articles of food. The vitamin C content of 30 Indian foodstuffs, chiefly fruits, has been determined. The results of experiments show that mango, guava, lichi, pineapple and red-pepper are the richest sources of vitamin C. It has been ascertained that the rice water obtained from mill polished rice contains vitamin B. Perhaps this explains why some people in Bengal suffering from acidity, are in the habit of taking rice water in the morning. It has also been found that vitamin B present in rice is not destroyed during the usual process of cooking as is done in Indian homes.—*Indian Views.*

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Exercise in water for Arthritis Sufferers.—Exercise and massage in the water, similar to the treatments given patients recovering from infantile paralysis, were recommended for sufferers from chronic arthritis at the meeting of the American Congress of Physical therapy. Methods and results of such treatment of arthritis, the "rheumatism" of grandmother's day, were described by Dr. Euclid M. Smith of Hot Springs National Park, Arkanas.

"The relatively free movement without pain and the performance of exercises in water, such as walking, impossible to perform out of water, gives the patient a pleasurable sense of activity which can only be appreciated by one who has been confined to

the bed or wheel chair", Dr. Smith said.

The buoyancy of the water enables the patient to move about much more freely with a minimum of pain and effort, Dr. Smith explained. He and his associates use for these treatments the natural Hot Springs water at a temperature of 98 to 99 degrees Fahrenheit. The warmth of the water dilates the small blood vessels at the surface of the body, which increases the flow of blood and lymph to the parts, stimulates the nutrition of muscle tissue and promotes the elimination of toxic, waste material".

Dr. Smith believes that heat applied by immersion in warm water while exercise and massage are being taken is more effective than heat by baking followed by exercise or massage.

Exercise under water for treating arthritis was adopted as a result of studies by the late Dr. Robert W. Lovette of Boston and Dr. Charles L. Lowman of Los Angeles, Dr. Smith pointed out.

Under water treatment, he said, must be considered as only a part of the general physiotherapy program which is an important adjunct to the proper medical care of the chronic arthritis patient.

"Heat, exercise and massage are the standard methods of treatment for muscular atrophy as well as joint affections", he continued. "The underwater treatment is based upon these fundamental principles of physiotherapy. Its application to the treatment of chronic arthritis is directed toward the prevention and correction of deformities, the restoration and re-education of the atrophied muscle groups, the restoration of joint function and general body tone, and the correction of faulty body mechanics".
—*Science News-Letter.*

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Potatoes for Fitness. — Although few people realize it, the potato is one of the most valuable vegetables in the working man's dietary. The average housewife, however, uses it largely because of its cheapness.

It is rich in vitamins A, B, and C, and is also an excellent antiscorbutic. In fact, scurvy is unknown in countries where potatoes form a regular part of the diet. Most people imagine that they are fattening but Dr. H. K. Archibdald, who has done an amount of research work on the potato, says it may be included in any diet without the slightest qualms. It is very nutritious, and with the addition of a little butter and salt men have lived exclusively on a diet of potatoes for 300 days, keeping in perfect health the whole time.—*The Tanganyika Opinion.*

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Banana Powder in Infant feeding.— Ripe bananas can now be considered one of the first solid foods that may be added to an infant's diet according to K. Blanchard (*Medical Record*, January 1, 1936, cxliii, 29). He gives the results of adding a tablespoonful of powdered, ripe banana to the regular diet of a group of 49 children at an orphan's home, and over the period of the trial there was a remarkable absence of illness. The weight progress of the children was very satisfactory for, not only is the banana carbohydrate readily assimilated, but it has a high caloric value and contains vitamins, A, B, C as well as a relatively high mineral content. The banana powder is made only from well ripened bananas and never produced any disturbance of the gastro-intestinal tract. It is now known that in the ripening process the banana changes from a starchy vegetable into a much more digestible food made up almost entirely as regards its carbohydrate content of fruit sugars. It thus forms a more desirable addition to milk mixtures than starchy preparations in the early days of solid feeding.
—(*The Practitioner*).

Health Calendar—May 1936

By Mr. N. Rajaram Naidu,

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Friday.	1	The practice of Hygiene pays rich dividends.
Sat.	2	Flies breed in dung heaps : keep them covered.
Sun.	3	Keep your temper control your passions and be cheerful.
Mon.	4	No happiness without health.
Tues.	5	Alcohol is of no value when work is to be done.
Wed.	6	Finger and Toe nails should be kept clean and closely cut.
Thurs.	7	Clean the house and keep out the flies.
Friday.	8	The full value of food is not obtained without fresh air.
Sat.	9	Isolation is the most efficient means of controlling leprosy.
Sun.	10	A clean mouth is essential to good health.
Mon.	11	Eat more fruit : drink more milk.
Tues.	12	Better wear out than rust out.
Wed.	13	*Sir Ronald Ross born 1857:*
Thurs.	14	Destroy the breeding places of Mosquitoes.
Friday.	15	Keep the teeth clean and sound.
Sat.	16	Innocence does not mean ignorance.
Sun.	17	*Jenner born 1749.*
Mon.	18	Vaccination prevents small-pox
Tues.	19	Cases of communicable diseases should be reported to local officials.
Wed.	20	Avoid stimulants and excesses.
Thurs.	21	Ascension day.
Friday.	22	Disease is a tax on ill pleasure.
Sat.	23	Primitive man was an out-door animal : are you ?
Sun.	24	*Empire Day.*
Mon.	25	Dirt is dirtiest in fairest spots.
Tues.	26	Infant marriage is a national crime.
Wed.	27	*Koch the discover of Tuberculosis germ died 1910.*
Thurs.	28	Dark rooms foster consumption.
Friday.	29	Sleep is the time for the daily overhaul.
Sat.	30	Flies prefer close and stuffy rooms to airy and well ventilated ones.
Sun.	31	Sturdy ancestors make sturdy posterity.